

Appl. No. : 09/916,711  
Filed : July 27, 2001

### REMARKS

Claims 1-10, 12-15, and 21-33 are pending in this application. Claims 11 and 16-20 had been canceled in a previous amendment.

#### **Claim Rejection - 35 U.S.C. § 103(a)**

##### **Shults et al. in view of Nagata et al.**

Claims 1, 2, 5-10, 12-15, and 22-33 have been rejected under 35 U.S.C. §103(a) as obvious over U.S. 6,001,067 ("Shults et al.") in view of U.S. 4,871,440 ("Nagata et al."). Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Shults et al. disclose an implantable enzyme-based glucose monitoring device that utilizes a three electrode system including working, reference, and counter electrodes (col. 9, lines 65-67). Shults et al. does not, however, disclose a three electrode system wherein the electrochemical reactive surface of the counter electrode is greater than the surface area of the working electrode.

Nagata et al. disclose two electrode and three electrode systems. Nagata et al. note that it is difficult to stabilize the potential between the electrodes in the prior art two electrode system (col. 1, lines 46-48), and that the general solution to the stability problem in the two electrode system is "to mak[e] the area of the counter electrode 32 sufficiently large with respect to the working electrode 31" (col. 1, lines 33-52). In contrast, Nagata et al. comment on the stability of a three electrode system, and note that "even when the counter electrode 32 has not so large an area, the potential stability can be enhanced, and consequently, the density of the object material is able to be measured with remarkable accuracy on the basis of the obtained current signal" (col. 1, lines 33-52).

Accordingly, while it might be obvious to modify a two electrode system using an arrangement of working and counter electrodes such as is taught by Nagata et al. to stabilize the potential, it would not be obvious to modify the Shults et al. three electrode system in such a

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fashion. The three electrode system is inherently stable, as noted by Nagata et al. One skilled in the art recognizes that the three electrode system is inherently stable because the reference electrode is designed such that no current passes therethrough. Thus, there would be no motivation to attempt to enhance the stability of a three electrode system of Shults et al. by making the electrochemical reactive surface of the counter electrode greater than the surface area of the working electrode. Indeed, if such a modification were obvious, then it would have been applied by Nagata et al. to the three electrode system described in Nagata et al.

A *prima facie* case of obviousness therefore cannot be made, and Applicants respectfully request withdrawal of the rejection.

**Claim Rejection - 35 U.S.C. § 103(a)**

**Shults et al. in view of Nagata et al. and Schulman et al.**

Claims 3 and 4 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Shults et al. in view of Nagata et al. and U.S. 6119028 ("Schulman et al."). As discussed above, there is no suggestion or motivation to combine the teachings of Shults et al. and Nagata et al. to yield the sensor as presently claimed. Schulman et al. does not include disclosures sufficient to overcome the deficiencies of Shults et al. and Nagata et al., as discussed above. Accordingly, Applicants respectfully request withdrawal of the rejection.

**Claim Rejection - 35 U.S.C. § 103(a)**

**Shults et al. in view of Nagata et al. and Ward et al.**

Claim 21 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Shults et al. in view of Nagata et al. and 6,119,028 ("Ward et al."). As discussed above, there is no suggestion or motivation to combine the teachings of Shults et al. and Nagata et al. to yield the sensor as presently claimed. Ward et al. does not include disclosures sufficient to overcome the deficiencies of Shults et al. and Nagata et al., as discussed above. Accordingly, Applicants respectfully request withdrawal of the rejection.

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**Conclusion**

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns that might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: \_\_\_\_\_

*April 21, 2004*

By: \_\_\_\_\_



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